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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,935	12/02/2003	Folkert Horst	04518/0200629-US0	7009

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EXAMINER
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JULES, FRANTZ F

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/727,935

Applicant(s)

HORST, FOLKERT

Examiner

Frantz F. Jules

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 15-21 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-12, 22, 23 and 25 is/are rejected.
- 7) ☒ Claim(s) 5-7, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 02/02/2005
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of claims 1-14, 22-23 and 25 in the reply filed on 04/05/2005 is acknowledged. The traversal is on the ground(s) that there's no distinguishable embodiments. This is not found persuasive because none of these claims are directed towards a Network control system and all of these claims are directed towards different features of a locomotive remote control system.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 15-21 and 24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected specie, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 04/05/2005.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 8, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swensen et al (US 5,420,883) in view of Ahl (US 5,666,653). Swensen et al disclose a locomotive remote control system including a plurality of remote control units (60-64, 76-86), each remote control unit being adapted for receiving commands to be implemented by a locomotive;

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a plurality of locomotive controllers (70-74) suitable for mounting on-board respective locomotives, the locomotive controllers in the plurality of locomotive controllers being adapted for causing their respective locomotives to implement commands; said plurality of remote control units and said plurality of locomotive controllers being capable of communicating with one another over a common communication link, the common communication link including a plurality of TDMA frames as disclosed in col 6, lines 40-68), each TDMA frame including a set of time intervals, at least some time intervals in the set of time intervals being assigned to respective remote control units in the plurality of remote control units, the time intervals in the set of time intervals having a time interval length.

The time interval length is derived at least in part on the basis of the number of remote control units in said plurality of remote control units or on the basis of the number of locomotive controllers in accordance with claims 2-4.

Swensen et al teach all of the features as disclosed above but does not disclose time interval having a time interval length that is variable. The general concept of providing a time interval length that is variable to a TDMA frame is well known in the art as illustrated by Ahl which discloses the teaching of a time interval length that is variable to a TDMA frame, see col 21, lines 25-28. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Swensen et al to include the use of providing a time interval length that is variable to his advantageous TDMA frame as taught by Ahl in order to provide flexibility and sufficient quality to the system to handle sporadic data traffic.

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5. Claims 9-12, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swensen et al (US 5,420,883) in view of Ahl (US 5,666,653) and further in view of Vandervort Catalogue Sheet (PCM used for remote controls). Swensen et al teach all the limitations of claims 9-12, 23 and 25 except for a remote control unit comprising a user interface and a time interval length that is variable to a TDMA frame. The general concept of providing a user interface to a remote control module is well known in the art as illustrated by Vandervort catalogue sheet which disclose the teaching of a user interface that enables a human operator to enter command to be implemented by a locomotive. Also, the general concept of providing a time interval length that is variable to a TDMA frame is well known in the art as illustrated by Ahl which discloses the teaching of a time interval length that is variable to a TDMA frame, see col 21, lines 25-28. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Swensen et al to include the use of a user interface in his advantageous remote control module as taught by Vandervort catalogue sheet in order improve the performance of the device by providing flexibility for an operator input data capability while standing outside of the train. In addition, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Swensen et al to include the use of providing a time interval length that is variable to his advantageous TDMA frame as taught by Ahl in order to provide flexibility and sufficient quality to the system to handle sporadic data traffic.

***Allowable Subject Matter***

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6. Claims 5-7, 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Kivett is cited to show related remote communication system comprising TDMA frames. Denen et al are cited to show related train comprising a user interface remote control module.

Kull et al and Brousseau et al are cited to show related remote control module comprising a user interface.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 272-6681. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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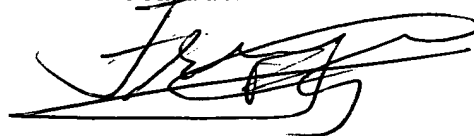
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz F. Jules  
Primary Examiner  
Art Unit 3617

FFJ

May 16, 2005

**FRANTZ F. JULES**  
**PRIMARY EXAMINER**

A handwritten signature in black ink, appearing to read 'Frantz F. Jules', written over a horizontal line.